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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,896	05/18/2006	Thomas Klein	72233	8699

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EXAMINER	
DANG, KET D	
ART UNIT	**PAPER NUMBER**
4118	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/595,896	KLEIN, THOMAS	
	Examiner	Art Unit	
	KET DANG	4118	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05/18/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *05/18/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 4 is objected to because of the following informalities: In claim 4, "a wleding torch" is misspelling. It is suggested to correct the phrase "a welding torch". Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haczynski et al. (US Pat No. 5,866,874) in view of Tsutsumi (EP 1358973 A1).

3. Regarding claim 1, Haczynski et al. disclose a fixing device (Col 3, line 55-56) for attaching the welding torch device 10 (Fig. 1) (Abstract) to the welding robot (Abstract) (Col 1, line 16-18); a receiving device 26 (Fig. 1) for holding a welding torch 10 (Fig. 1) and for transferring driven rotatory (Col 3, line 55-56) motions to the welding torch; an electrical connection for a welding power cable 20 (Fig. 1) (Col 3, line 42-44), by means of which a robot side of the welding torch device can be electrically connected to a welding power source (Fig. 1) (Col 3, line 44-47); a current transfer device 22, via which the welding power cable 20 (Fig. 1) (Col 3, line 42-44) can be electrically connected to a welding torch 10 (Fig. 1) side of the welding torch device, a leadthrough 14 (Fig. 1), through which expendable supply material (Col 3, line 60-66)

required for the welding process can be guided in the direction of the receiving device 26 (Fig. 1); the receiving device 26 (Fig. 1) and/or the fixing device can be connected to the stator in an electrically conductive manner by means of an electric contact means (Col 5, line 60-64); except for wherein the current transfer device has a stator, which is provided for the rotationally fixed arrangement in relation to the robot arm, but can be rotated in relation to the connection device on the welding robot side; wherein the receiving device and the fixing device are embodied as rotors, which, as a result, can be rotated in relation to the stator; and a rotational axis of the rotor is at least essentially aligned with the rotational axis of the connection device of the robot and the rotor can be rotated about the rotational axis as well as about the stator. However, Tsutsumi teaches wherein the current transfer device has a stator 1 (Fig. 1), which is provided for the rotationally fixed arrangement in relation to the robot arm (Page 2, paragraph 2), but can be rotated in relation to the connection device on the welding robot side; wherein the receiving device and the fixing device are embodied as rotors 6 (Fig. 1), which, as a result, can be rotated in relation to the stator 1 (Fig. 1) (Page 6, paragraph 45); and a rotational axis of the rotor (Page 4, paragraph 24) is at least essentially aligned with the rotational axis of the connection device of the robot and the rotor can be rotated about the rotational axis as well as about the stator. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Haczynski's reference, to include a stator, a robot arm, and rotors, as suggested and taught by Tsutsumi, for the purpose of passing different electric signals among robot welding components (Page 2, paragraph 8).

4. Regarding claims 2-7, Haczynski et al. disclose the claim invention and wherein a longitudinal axis (See Figure 3) (Col 4, line 11-15) of the leadthrough is aligned with the rotational axis of the connection device; a leadthrough 14 (Fig. 1) of the receiving device for welding wire (Col 4, Line 31-34) for the welding torch 10 (Fig.1), whereby the leadthrough of the stator and the leadthrough of the receiving device 26 (Fig.1) run at least essentially coaxially to one another; wherein a longitudinal axis (Col 4, line 11-15) of a recess of the leadthrough 14 (Fig. 1) of the stator runs at least essentially coaxially to the rotational axis of the rotatory motion of the connection flange 9 (Fig. 1) on the robot side; wherein a common rotational axis of the fixing device (Col 3, line 55-56), the receiving device runs coaxially to a longitudinal axis (Col 4, line 11-15) of the leadthrough 14 (Fig. 1) of the stator; further comprising insulating medium, which electrically insulates (Col 3, line 37-39) the fixing device from the stator, whereby the stator and the receiving device 26 (Fig. 1) are connected to one another in an electrically conductive manner by means of a stator to receiving device contact means; except for wherein the stator has a rotationally fixed electric connection for the welding cable, through which the rotational axis of the connection device runs. However, Tsutsumi teaches wherein the stator 1 (Fig. 1) has a rotationally fixed electric connection (Page 4, paragraph 24) for the welding cable 25 (Fig. 1), through which the rotational axis of the connection device runs. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Haczynski's reference, to include a stator, electric connection, and welding cable as

suggested and taught by Tsutsumi, for the purpose of passing different electric connections among robot welding components (Page 2, paragraph 8).

5. Regarding claims 8-13, Haczynski et al. disclose the claimed invention, except for wherein the stator to receiving device contact means has elements, which are rotated together with the rotor about an axis, whereby the rotational axis of these elements are aligned with the rotational axis of the connection device of the robot; wherein the contact means is embodied as a sliding contact means; further comprising a force means, with which at least one said sliding contact element of the sliding contact means can be pressed against a contact partner; two force means, with which the at least one sliding contact element can be pressed against contact partners in the axial and radial directions in relation to the axis of the rotatory motion; wherein the force means are springy, and the at least one sliding contact element can be pressed against both a first contact partner radially surrounding the leadthrough; and a second contact partner axially offset to the sliding contact element; a bell-shaped section of the stator, in which the sliding contact means is arranged. However, Tsutsumi teaches wherein the stator 1 (Fig. 1) to receiving device contact means has elements, which are rotated together (Page 6, paragraph 45) with the rotor 6 (Fig. 1) about an axis, whereby the rotational axis (Page 4, paragraph 24) of these elements are aligned with the rotational axis of the connection device of the robot (Page 2, paragraph 2); wherein the contact means is embodied as a sliding contact means 26 (Fig. 1) (Paragraph 33); further comprising a force means (Page 5, paragraph 33), with which at least one said sliding contact element (Page 5, paragraph 33) of the sliding contact means can be pressed

against a contact partner; two force 48 (two sides Fig. 1) means, with which the at least one sliding contact element 26 (Fig. 1) can be pressed against contact partners in the axial and radial directions in relation to the axis of the rotatory motion (Page 4, paragraph 24); wherein the force means are springy 48 (Fig. 1) (Paragraph 52), and the at least one sliding contact element 26 (Fig. 1) can be pressed against both a first contact partner radially surrounding the leadthrough; and a second contact partner axially offset to the sliding contact element 26 (Fig. 1); a bell-shaped section of the stator 1 (Fig. 1), in which the sliding contact means 26 (Fig. 1) is arranged. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Haczynski's reference, to include rotational axis, sliding contact means, and springy as suggested and taught by Tsutsumi, for the purpose of reducing the sliding friction of near by elements (Page 2, paragraph 5).

6. Regarding claims 14-16, Haczynski et al. disclose the claimed invention and wherein the leadthrough 14 (Fig.1) is provided with a recess through which both welding wire (Col 4, line 31-34), and inert gas (Col 1, line 20-24) can be fed to the welding torch 10 (Fig. 1) as the expendable supply material (Col 3, line 60-66); wherein the electric connection for the welding power cable 20 (Fig. 1) (Col 3, line 42-44) is part of a wall defining the recess, except for insulating medium, by means of which the fixing device can be electrically insulated against the current transfer device. However, Tsutsumi teaches insulating medium 49 (Fig. 2) (Page 6, paragraph 41), by means of which the fixing device can be electrically insulated against the current transfer device. Therefore, it would have been obvious to one of ordinary skill in the art at the time of

invention was made to modify the Haczynski's reference, to include insulating medium as suggested and taught by Tsutsumi, for the purpose of interposing insulator between electrode and spring (Page 6, paragraph 41).

7. Regarding claim 18, Haczynski et al. disclose welding device comprising a fixing device (Col 3, line 55-56) for attaching the welding torch device 10 (Fig. 1) (Abstract) to the welding robot (Col 1, line 16-18); a receiving device 26 (Fig. 1) for holding a welding torch; an electrical connection for a welding power cable 20 (Fig. 1) (Col 3, line 42-44), by means of which a robot side of the welding torch device (Col 2, line 25-26) can be electrically connected to a welding power source 22 (Fig. 1) (Col 3, line 44-47); a leadthrough 14 (Fig. 1) of the stator, through which expendable supply material (Col 5, line 60-66) required for the welding process can be guided in the direction of the receiving device 26 (Fig. 1); and the receiving device and/or the fixing device can be connected to the stator in an electrically conductive manner by means of an electric contact means (Col 5, line 60-64); the fixing device (Col 3, line 55-56) of the rotor, being designed for attaching to the connection device of the robot, except for arm robot provided with a connection flange; wherein the current transfer device has a stator, which is provided for the rotationally fixed arrangement in relation to the robot arm, but can be rotated in relation to the connection device on the welding robot side; wherein the receiving device and the fixing device are embodied as rotors, which, as a result, can be rotated in relation to the stator; and a rotational axis of the rotor is at least essentially aligned with the rotational axis of the connection device of the robot and the rotor can be rotated about the rotational axis as well as about the stator.

However, Tsutsumi teaches arm robot (Page 2, paragraph 2) provided with a connection flange 9 (Fig. 1); wherein the current transfer device has a stator 1 (Fig. 1), which is provided for the rotationally fixed arrangement in relation to the robot arm (Page 2, paragraph 2), but can be rotated in relation to the connection device on the welding robot side; wherein the receiving device and the fixing device are embodied as rotors 6 (Fig. 1), which, as a result, can be rotated in relation to the stator (Page 2, paragraph 2); and a rotational axis (Page 4, paragraph 24) of the rotor is at least essentially aligned with the rotational axis of the connection device of the robot and the rotor 6 (Fig. 1) can be rotated about the rotational axis as well as about the stator (1 (Fig.1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Haczynski's reference, to include flange, a stator, a rotor, and rotational axis as suggested and taught by Tsutsumi, for the purpose of improving structure of robot welding components (Page 2, paragraph 8) thereby enabling passing different electric signals.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Guichard et al. disclose compact tool for automatic MAG Spot welding. Warner discloses safety mounting device. And Bridges et al. disclose welding torch cleaner for robotic welding.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KET DANG whose telephone number is (571)270-7827. The examiner can normally be reached on Monday - Friday, 7:30 - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quang Thanh can be reached on (571)272-4982. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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